

## **Section 500 - Process for Class II Projects**

### **Section 510.00 - Overview**

510.01 Abbreviations and Acronyms.

### **Section 520.00 - Standards**

### **Section 530.00 - Format Guidance**

530.01 Purpose and Need.

530.01.01 Purpose Statement.

530.01.02 Need.

530.01.03 Narrative.

530.02 ITD 654 Form.

### **Section 540.00 - Technical Guidance**

540.01 Discipline Reports.

540.02 Report Outline.

540.03 The BE/BA Clearance Process.

### **Section 550.00 - Exhibits**

Exhibit 500-1 Environmental Evaluation.

Exhibit 500-2 Conceptual Environmental Evaluation

Exhibit 500-3 Project Description Example

## **SECTION 500 - PROCESS FOR CLASS II PROJECTS**

### **SECTION 510.00 – OVERVIEW**

Transportation projects in Idaho are typically reviewed as NEPA Class II Categorical Exclusions (CE). Since this classification is the most common for ITD projects, this section provides guidance for efficient methodology to process the CEs. Most of the information found in this section is included elsewhere in the Environmental Process Manual (EPM) but this concise section will serve as a quick reference for many of the issues arising from a CE environmental clearance. The preparation of an Environmental Evaluation (EE) should not be based solely on this section. Other sections of the EPM must be utilized as appropriate. In addition, FHWA technical Advisory T6640.8A, Guidance for Preparing and Processing Environmental and 4(f) Documents is a valuable reference that should be utilized in the preparation of an EE.

#### **510.01 Abbreviations and Acronyms.**

BA	Biological Assessment
BE	Biological Evaluation
CE	Categorical Exclusion
EE	Environmental Evaluation
EPM	Environmental Process Manual
ITD	Idaho Transportation Department
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
USFWS	United States Fish and Wildlife Service

### **SECTION 520.00 – STANDARDS**

There are no statutes or regulations for addressing CE format or content. The standards and format presented here have been agreed upon by ITD, FHWA and the various resource agencies involved. The primary goals in preparing the CE package are consistency, accuracy, clarity and brevity.

Consistently following a set format will lead to greater efficiency in preparation and greater confidence in the document by the reviewers. Eliminating extraneous material and summarizing the pertinent information in the narrative will simplify the document, save file space and speed up review. Being precise in descriptions will end confusion in what is being proposed and the impacts of the proposal.

## SECTION 530.00 – FORMAT GUIDANCE

**530.01 Purpose and Need.** The first step in the process is to establish Purpose and Need. The fundamental legal guidance on Purpose and Need Statements comes from the NEPA CEQ regulation, Section 1502.13—the Purpose and Need Statement “shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” This is generally completed in advance of the EE preparation but it should be continually visited throughout the project development and into the final EE package preparation. Without a firm understanding of the project purpose and the reason the project is needed, the various aspects of the project documentation will be chaotic.

Very basically describe the purpose for the action. This statement should reflect what is checked in the Project Purpose and Benefits section of the ITD 654 and 651 forms and also match what is described in the Concept Report. Pay particular attention to this issue as the project may evolve from the time the Concept Report is first drafted to the time the Environmental Evaluation package is prepared.

**530.01.01 Purpose Statement.** *The Purpose statement does not describe any construction methods.* Describe the project purpose in general terms such as to improve safety, or improve traffic flow or capacity from point A to point B, etc. The statement covers the final goal of the project and is intentionally more global in concept than is the project description. This lack of detail is intentional so as not to predetermine an alternative if more than one alternative is available. Describing where the project is to be constructed or how it is to be constructed is an automatic predetermination of what the project will be. (see Exhibit 500-3). The Purpose should include the route and the terminal points of the project and should also be worded so that a measurable final goal can be achieved.

- The Purpose is analogous to the problem. It is the “what” of the proposal.
- The Purpose should focus on the state transportation system. Other important issues to be addressed by the project such as local transportation systems, livability, and the environment should be identified as Goals and Objectives elsewhere in the narrative.
- The Purpose can be stated in a single sentence or at least a very short paragraph. The Purpose should be stated as the positive outcome that is expected. For example, the purpose is to reduce congestion in the interstate corridor in a given area or from MP xxx.x to MP xxx.x.
- It should avoid stating a solution as a purpose, as in “the purpose of the project is to build a bypass”.
- Where appropriate, Purpose should be stated broadly enough so that more than one transportation mode can be considered and multi-modal solutions are not dismissed prematurely.
- The Purpose should be stated in a manner so that a list of intermediate steps could be posed as the solution, scaled to the needs of the community, if appropriate.
- The Purpose should describe the route and the terminal points of the action.
- The Purpose should contain a measurable goal.

If the project is a grade separation or bridge replacement it will naturally be confined to a particular area. In a case of this type the Purpose statement still should be centered on concepts such as safety or traffic flow or some aspect of the transportation system that will be improved by the project, not the project itself.

**530.01.02 Need.** Need for the project should be a more lengthy statement. For example, describe the project need in terms of the number of accidents in a given segment or where the level of service at the intersection is D and should be B or traffic flow can be increased to reduce air pollution if a curve is reduced or removed, etc. Here again *the need statement does not describe construction..* A Need statement will typically include some data such as traffic counts or accident statistics to verify why the project is needed unless it is a maintenance action.

- Need should establish the evidence that the problem does or will exist if projected population and planned land use growth are realized or maintenance cannot keep up with deterioration.
- Need should be factually and numerically based.
- Need should support the assertion made in the purpose statement. For example, if the purpose statement is based on safety improvements, the need statement should support the assertion that there is or will be a safety problem to be corrected.

**530.01.03 Narrative.** In the text of the narrative for the CE, construction methods are described in the **Project Description** statement. *Project Purpose, Project Need and Project Description are three separate and unique statements.* The project description statement should go into as much detail as necessary to present the reviewer with an accurate picture of what methods, sequences, materials and machinery will be used to complete construction. There should also be an indication of the seasonal timing and expected duration of the construction period.

**530.02 ITD 654 Form.** Completing the ITD 654 is the second step for preparation of the EE package. Working from the top of the form downward: Fill in the first section including the Work Authority and Program Year. These are time saving devices for HQ reviewers after this form has left the district office. Fill in the blanks regarding project number and location and verify that the milepost numbers entered here are the same numbers that appear on the preliminary plan sheets and the Concept Report. Fill in the second section completely.

Be careful to check *two* boxes in the Air Quality section: one to indicate Attainment/Non-attainment status and one to indicate Exempt/Non-exempt status. In the Project Purpose and Benefits section, mark with a single mark all the items that apply to the project. Double mark the one item that is the primary purpose for the project. Go back and check the Purpose and Need Statement and verify that it agrees with what you have just checked.

Check provisions for bicycle and pedestrian use. Also check the bottom section of the 783a form in the concept report to be certain that the Design Section has acknowledged bicycles and pedestrians and that the Project description section of the EE text covers bicycle/pedestrian use.

Note that the 27 items of possible impacts identified on the ITD 654 do not have to be *adversely* or *permanently* impacted. Is there enough concern about the item to warrant additional discussion in the narrative text? If so, check the yes box. Construction noise is an impact in virtually all projects but it is not a permanent, adverse impact. It still should be checked. A bicycle path that links two previously un-connected paths or areas may very well constitute a change in Travel Patterns for cyclists. If so, it should be checked. Any item that is impacted by the project must be checked and if the project would normally impact an item, but in this case does not, check the yes box and explain in the narrative why the expected impact does not occur.

Sign the form. The signature on the ITD 654 form carries import and means the signers have investigated impacts to the various categories and the impacts are as indicated.

Once the appropriate category surveys have been completed, the final 654 can be completed for inclusion in the EE. Fill the form out with the appropriate information and on the back page of the 654, check the appropriate items. A 654 being inserted into a final EE must be signed in both signatory blocks. If the signatures are unreadable, please print the name of the signer beneath the signature.

With the Purpose and Need and form 654 completed and in agreement, the basic foundation of the EE is formed. The package can be assembled in the following format.

### **530.03 Environmental Evaluation Format. (See Section 120.00)**

- **Title Page:** Include Categorical Exclusion Approval Block for FHWA, or in the case of 23 C FR 771.117(c) and programmatic (d) projects, for ITD. Also include the project number, key number, date of preparation and county of location.
- **Table of Contents:** Even for small projects a table of contents can be helpful. Always number the pages of the main body of the document and include the numbers in the Table of Contents. If possible, consecutively number the entire document. If it is not practical to number the entire document, be sure all appendices are indicated in a manner that makes them easy to find and reference. Do not number each narrative section with its own page number sequence. Number the pages consecutively from the beginning of the narrative presentation to the end.
- **State Location Map & Vicinity Sketch:** Two maps are generally sufficient to show project location. One will show the general area of the project and the second will be of the project vicinity. A full page state map with an area inset and a full page project site map will give all the location information and can include project details on just two map pages. Maps should include beginning and ending milepost limits. If the area map is of such scale that it does not include any landmarks, it may be useless in depicting the general area. Also if it is of such a large area of the state that the project cannot be discerned, it may be useless. The vicinity map should cover the area of the project and enough local landmarks so there is no question as to the project location. Other maps elsewhere in the document showing the locations of historic resources, noise receptors, etc. may also be helpful.
- The maps must be of a quality that they can easily be read and the text and legend must be of a size that can be easily read. Be careful about copyrighted maps if the EE is prepared by a consultant. If the consultant is being paid for the EE, using a copyrighted map may be a copyright infringement if permission is not granted for its use. Even USGS maps are copyrighted but can generally be used if the source is listed on the map.
- **Project Area Photographs:** Several (wide angle would be helpful) photos of the general habitat and topography in the project vicinity should be included. Include close up pictures of project components that may be an issue. For instance, if the project is a C.R.A.B.S. job with a culvert replacement there should be pictures of each end of the culvert and the area that will be disturbed by the replacement activity. If an eagle roost, perch or nest tree is going to be impacted by the project, include a photo showing the relationship of the tree to the project. Also mark this tree on the vicinity map or a separate project map. If there is an impact area that may be a questionable endangered plant habitat, include pictures of the area even though they should have been included in the BE/BA.

- **ITD-654 Form, Environmental Evaluation:** See discussion under section (B) above.
- **Purpose & Need Description:** See discussion under Section (A).
- **Project Description:** Make certain that the project is adequately described. This includes, but is not limited to, the methods, materials and machinery, timing (time of year and length of time), sequence of operations, what will be removed, what will be replaced, how debris, dust and damage is controlled, etc. Many of the methods of construction and types of machinery may not be known until the contract is let and the contractor decides how he is going to approach the project. In the project description, provide as much information as you can expect to be reasonably accurate.
- **Environmental Evaluation Narrative:** This is the body of the EE. When describing the numbered items from the 654 form (and the project description), remember that this text is conveying a mental picture of the project to persons who have never seen the project and may have never seen the project area. Be clear, be concise and be accurate. Refer to the 654 form and start with ACRES OF NEW R/W. Draft a brief statement that explains why new R/W is needed and how much is needed. If new R/W is not needed then start with the first item that does involve the project.
- This is the place to explain why some of the items are checked even though they may not have lasting adverse impacts. There may be construction noise but it can be mitigated by working only in daylight hours, not on weekends, having muffled engines, etc
- In those areas where there may be impact or even substantial impact, expand the response to clearly explain what the impact is and why it cannot be avoided. Remember that none of the impacts can be *significant*. If there is a significant impact, the CE is inappropriate and an EIS must be prepared.
- Cover all the items on the 654 form that have been checked “yes” as well as the items in the section under the project identification section. List them in sequence as they appear on the 654 form.
- Explain why there is no impact when one would assume there would be an impact. For instance, addition of a passing lane in an area of Prime Farmland would indicate an impact to that farmland. Why is there no impact?
- **Mitigation Plan Report/Summary:** Prepare a section that lists all the mitigation from the narrative. This section must be complete and accurate and reflect all the mitigation that was included in the discipline reports, as well as in the FWS BA concurrence, Corp. of Engineers 404 permit and from any other resource agency that has commented on the evaluation. The Mitigation Plan will become the point of reference the contractor and inspectors will use to make sure that the mitigation intended by the resource agencies will actually be installed on the earth. The Mitigation Summary report shall be included in the Special Provisions of the Contract Bid Proposal.
- **Public Involvement Summary** (See Chapter 4 of ITD Guidebook to Public Involvement). All comments received during the public involvement process and project development must be satisfactorily addressed. “No answer” or non-responsive answers are not acceptable.
- **Correspondence and Support Documentation:** In this section include phone call logs, conversations, correspondence, etc. that is not contained in any of the supplemental reports referenced in the EE and that are important to the understanding of the EE

conclusions. The narrative section of the evaluation should reference this section if any personal communication is used for technical expertise or support. Unsupported communications are not useful and should be omitted from the EE.

- **Discipline reports:** Summarize the impacts and the body of the report in the narrative. Include the actual report as an attachment to the EE
- **Summarized Concept Report** (i.e., ITD-783, Draft Design Study Report Narrative, Vicinity Sketch, 783-A with Typicals, Traffic Data Request form, a Safety Evaluation when appropriate, 757 Design Standards and 783B). No plan sheets except Typicals are to be included. Concept Report materials are to determine if the project as described in the EE is consistent with what was proposed in the concept stage. These forms are informational only and not subject to review for NEPA clearance.

All pages in the EE should be consecutively numbered in the main body of the EE. Appendices can be numbered separately. The EE package is not to be bound. Larger documents sometimes require binding to keep them manageable but no EE package should be that large. Keeping the textual portion to plus or minus twenty pages and attaching all discipline reports will allow the EE to remain concise. The reason for not binding is to eliminate the file space required for most binding. Large spiral bindings and three ring binders require an additional amount of storage. A single spring clip in the upper left document corner keeps the document under control and does not require additional file space.

For all documents except Categorical Exclusions, forward three copies to the HQ Environmental Section in care of the Environmental Section Manager. If the EE is acceptable, two copies will be forwarded to FHWA. For simple CEs, forward two copies to HQ and one will be forwarded to FHWA. A large, complex CE will require two copies for FHWA. If the document requires changes, try to accomplish the changes by E-mail to avoid the mail time between HQ and the District.

## **SECTION 540.00 – TECHNICAL GUIDANCE**

**540.01 Discipline Reports.** A Discipline Report is simply a convenient name for the various reports that all districts are currently preparing. For instance, a noise report, a wetland report, an Environmental Justice report are all Discipline Reports. The term is used in this manual to encompass the series of reports being discussed in a particular narrative instead of listing each report by name.

Discipline reports are typically prepared for District Offices by Consultants to document environmental studies and investigations. The reports form the basis for Categorical Exclusions, environmental documents such as EAs, EISs, and Section 4(f) evaluations. The reports describe the affected environment and detail the probable environmental impacts of project alternatives. They are used to help identify the least environmentally damaging alternative and provide information to others interested in the subject area.

The technical portion of the report provides evidence that all major potential impacts have been considered, presents information to support findings of impacts, and demonstrates clearly that the study is in compliance with the requirements of environmental law. Reports should only present factual data or expert opinion that is defensible in court. Once the report is written, the expert develops a summary that incorporates all the key areas pertinent to the discipline study. These summaries become the basic components of the environmental document.

**540.02 Report Outline.** After data has been collected, inventories compiled, and analyses completed for each discipline, the consultant prepares a formal discipline report. All discipline reports are developed in a similar format so they can be easily adapted to the needs of the environmental document. Some Discipline Reports, such as a BE/BA do have unique formats. Generally, discipline reports contain the following information but not necessarily in the same order:

- Background discussion on why the particular expertise area is critical to this project.
- Study methodology.
- Coordination with other groups or agencies.
- Affected environment (existing conditions).
- Summary of findings
- Predicted impacts of each alternative.
- Indirect impacts (when appropriate).
- Cumulative Impacts.
- Mitigation recommended for construction and operational impacts.
- Bibliography.
- Appendices

Each of the above topics should be addressed, but when information is brief, they may be combined. Before developing the report, the EIS or EA outline should also be reviewed, so significant details required for the environmental document are not overlooked.

Discipline reports are prepared so that field information can be presented in order to determine impacts and arrive at mitigation measures. The reports are not intended to be the definitive dissertation on the state of the discipline in science. For instance, a noise report does not have to begin with a complete section on what noise is and how we perceive noise. That basic knowledge is assumed. In a BE/BA it is not necessary to go into great depth on the description of the species. Here again, that basic knowledge is assumed. The discipline reports should be as concise as possible and still convey the detailed information on the impacts from the project and mitigation measures.

**540.03 The BE/BA Clearance Process.** The BE/BA is a collaborative effort between the district and USFWS and/or NOAA Fisheries (the Services). The process is actually a combination consultation/co-authorship/clearance effort with early and continual communication with the Services a vital component of successful completion of the consultation. For details of the complete consultation process see the USFWS Consultation Handbook. See the USFWS site <http://endangered.fws.gov/consultations/s7hndbk/s7hndbk.htm>.

To summarize the ESA consultation process, before any environmental field work is committed, the district should consult with the Services. If the district is comfortable that no listed species or critical habitat is impacted by the project, a No Effect Statement should be prepared. This is submitted to the FHWA for review by Operations Engineers to determine that the No Effect Statement is appropriate. If the No Effect determination is agreed upon by FHWA, no additional consultation with the services is needed. FHWA will respond to ITD's request for a No Effect finding by e-mail if ITD sends the request by e-mail. If ITD sends the request by letter, FHWA may respond by letter or e-mail. In either case, the FHWA Operations Engineer determination should be included in the project file. In the case of a No Effect, a sentence or two in the environmental document should be included to document the decision.



If May Affect, Not likely to Adversely Affect determinations appear likely, then with the consultant, contact the Services and discuss the project, the species list and the projects probable impacts to determine the depth of information the Services will require for concurrence on the BE/BA.

Continue to be in contact with the Services during the preparation of the BE/BA. When the draft is complete to the satisfaction of the Services, send that completed BE/BA to ITD HQ for review. HQ will check for policy and mitigation compliance and forward the final BE/BA to the Services with a cover letter requesting concurrence.

The concurrence letter and two copies of the BE/BA will be sent to FHWA as part of the Environmental Evaluation.

If it is determined in the initial meetings with the Services or at any point in preparation of the BE/BA, that there is a May Effect, Likely to Adversely Effect determination, the draft BE/BA will be sent to ITD HQ and then will be sent to FHWA to request formal consultation with the Services.

**The preparation of BE/BAs must also be re-examined by each district.**

Carefully consider the need for BE/BAs. The general perception has been that any listed species occurring on the county wide lists issued by USFWS must be surveyed with a new, consultant prepared, BE/BA. This is not necessarily always true. Carefully consider your project and the impact it may have on species or habitat.

- If all the listed species and critical habitat can be covered with a No Effect determination, no BE/BA is needed.
- Use existing information in your files or from outside sources. If a project is being proposed in an area where a biological survey has been done in the recent past, build on that information, regardless of which agency prepared the information, and possibly eliminate the need for an additional BE/BA. An example is a recent bridge replacement project where investigation showed that a recent EIS for a recreation area containing the project and a BE/BA for replacement of a boat ramp less than one hundred feet from the bridge replacement project had been completed by the Forest Service, with concurrence from USFWS. That BE/BA and EIS are acceptable and current information that may have been used in lieu of a new BE/BA for the same species. Although the ITD project may have different impacts, the consultation could be built upon the “avoidance, minimization, mitigation” concept instead of reworking all the background species and habitat information.
- Plan ahead. If a series of projects will be proposed for a concise geographic area, plan on doing a “batched” approach with one document instead of a BE/BA for each project. A batched BE/BA can be general for those species that will cover large areas of ground where the project is located. Where species are confined to smaller areas, the BE/BA will have to be more specific and cover each alternative in detail.
- A “No Effect” call can be made in many instances but it is not always prudent. For instance, it may take substantial work by a consultant to prove that there is no population of a species in an area where habitat exists. If you are certain that your project will have little or no impact on the species or critical habitat, simply “assume presence” and offer

mitigation if mitigation is appropriate and feasible. This does not require a consultant or a BE/BA. Mitigation is not always required. ESA does not require mitigation for every impact and NEPA requires that mitigation be only considered. If mitigation is appropriate, prepare to mitigate. If mitigation is very difficult to determine and would have little affect on a very small impact, don't offer it but explain fully why it is not offered.

For instance, wolves, grizzly bears and lynx are wide ranging species that may from time to time travel across a project site area. It may be far easier to assume that the species may rarely traverse the site area and explain why the project will have no discernable impact than it would be to "prove" the species is not present in the area. This "May Effect, Not Likely to Adversely Effect" determination will require a general description of the habitat and the possible impacts.

- For projects that have multiple species with determinations of May Effect and No Effect, Include in the BE/BA a summary of which species on the USFWS county wide species list for which a No Effect determination was made. If all the species on the countywide list have been covered by determinations of No Effect, then No Effect statements should not be forwarded to the Services. In this case, the process has been completed by working with the FHWA Operations Engineer and following the procedures for No Effect determinations as described above
- If there is no reasonable or feasible way to prepare mitigation measures and the impact is very small or nil, in the text of the BE/BA describe why there is a slight chance of impact, how small the impact would be if any, explain why mitigation is unreasonable or unfeasible and *don't offer any*. Mitigation was considered; that fulfills the basic requirement of NEPA. (see [Exhibit 200.1, question 19](#))
- Look closely at the project to determine if mitigation is already included as part of the project. Are BMPs utilized that cut down erosion or dust? Are additional impacts avoided by minimizing the project size? Is the construction window outside of the normal seasonal presence of the species? Does any aspect of the construction tend to avoid, minimize or enhance any part of the ambient habitat? These are all mitigations or compensations that may be admissible for the impact being described.
- Pay heed to historic range for endangered species. If the species has not been seen in your project area for 50 years but was once there, thoroughly document that fact, assume presence, and explain why no mitigation is being presented. However, for instance, if your project is in a historic Bull trout range and no trout has been seen there for 40 years because of a blocking culvert downstream, then a plan to retrofit or replace that culvert should be included in the project or a separate project should be instituted to rectify the culvert restrictions.

There is no checklist and there is no one and only way to meet the requirements for Section 7 compliance. Always consider a combination of project design features, alternative locations, construction periods, mitigation banking, and innovation when determining project impacts and avoidance.

## **SECTION 550.00 - EXHIBITS**

### ***Exhibit 500-1 Environmental Evaluation.***

ITD 0654 (Rev. 12/02) available on the FormFinder .

### ***Exhibit 500-2 Conceptual Environmental Evaluation***

The old 651 Conceptual Environmental Evaluation form is now obsolete and has been replaced by the 0280 Feasibility Form available on the FormFinder.

### ***Exhibit 500-3 Project Description Example***

## **I. DESCRIPTION OF THE PROPOSED ACTION**

### **A. Action Area**

The action area is the same for all species addressed in these Opinions. Basin Creek Bridge is located approximately eight miles (12.9 kilometers) northeast of Stanley, Custer County, Idaho. The bridge is located within the Sawtooth National Recreation Area (SNRA), Sawtooth National Forest (SNF), on State Highway 75 (SH 75). This minor arterial route provides service between Stanley and Challis and is a major recreational access for the SNRA and the Challis National Forest (CNF). The action area for this project is defined as the riparian corridor from approximately 100 feet upstream of the bridge to the confluence of the Salmon River and Basin Creek, and the portion of the Salmon River riparian corridor located within the Upper Salmon River basin (HUC 17060201) 200 feet downriver of this confluence. An existing materials waste site located approximately 10 miles downstream will be used for project material disposal; equipment staging and fueling will be at an existing area 0.2 miles downstream of the bridge site.

### **B. Proposed Action**

#### **1. Road and Bridge Construction**

The Basin Creek Bridge will be replaced in the fall of 2004 or 2005. All in stream work will be conducted under dewatered conditions during a fisheries window of July to mid-November, and all construction will be limited to daylight hours only. Oversight for all in stream work will be provided by Bruce Lium, PhD. of American Water Resources Company. Construction of the new bridge will occur in two stages in order to maintain traffic flow through the project area.

The first step in the construction process will be the installation of the dewatering apparatus, a plastic-lined sluice (Porta dam or similar structure). Operating a track hoe (or similar equipment) from the stream bank, a trench will be excavated across the stream channel approximately 100 feet upstream of the existing bridge. This trench will be used to anchor the upstream end of the dewatering structure and ensure thorough dewatering of the construction area. The trench will extend to a depth of two to four feet or until bedrock is encountered, whichever comes first. A manufacturer's representative is required to be on site to provide technical expertise during installation. A modular steel framework system will first be erected by hand in the stream channel. An impermeable vinyl liner will then be attached to the framework, creating the sluice for the stream water. The leading edge of the fabric will then be sealed in the trench with gravel bags if needed. The dewatering structure will capture most of Basin Creek's flow, allowing work to begin in the dewatered area. Gravel bags will be placed randomly in the bottom of the dewatering structure to provide fish refuge and fabric stabilization.

Using a backhoe (or similar equipment), stilling wells will be excavated in the dewatered areas to collect water that will likely flow under the vinyl liner and percolate into the work area. Small submersible pumps will be used to pump this water to the sediment pond initially; upon

stabilization, clean water will be returned directly to Basin Creek, immediately upstream of the dewatering device. Sediment-laden water from all other excavation activities will be pumped to the settling pond.

The upstream (northern) half of the new bridge will be constructed next. All material and equipment will be stored and maintained in uplands adjacent to SH-75. Excavation will begin by using a track hoe (or similar equipment) to dig holes for the placement of the new footings. This excavation will occur above the ordinary high water line and culminate at a grade point below the stream channel. Should water be encountered, it will be pumped to the retention pond. Wattles or retention basins (berms) will be used to prevent the introduction of sediment into the stream. The footings for the upstream half of the new bridge will then be formed and poured.

The existing northern wing walls will be removed with a track hoe to a depth of one foot below stream bottom. A temporary plank structure will be constructed to span the dewatering device and provide access to the north half of the existing bridge. The north half of the bridge will be removed by saw cutting in strategic locations to preserve the south half of the bridge and to prevent debris from entering stream flow. A track hoe (or similar equipment) will be used to remove the materials from the site.

Voided slabs will be placed by crane upon the new abutments. The approaches to the new bridge will be constructed to join the new deck. Graders, dump trucks, bulldozers, and compactors will be used to taper the existing roadway to the new bridge. Because the road prism was modified six years ago in anticipation of the new bridge alignment, approach work will be minimal on the west side, however, two existing 24 inch culverts (leading from the adjacent FS campground to the bank of the Salmon River) will be replaced at their present locations and at identical elevations. On the east approach, however, the apron of the Forest Service road will be modified and the highway will encroach upon the hillside to meet curve design standards. This will require a four foot shift to the north impacting the existing cut slope for approximately 100 feet along the highway, and as much as 20 feet up the slope to gain angle of repose. The bank material will be excavated and hauled to the disposal site, and the new surface will be graded to match alignment. The Forest Service road will remain in place but a guard rail will be added and a ditch will be dug to channel runoff to a pipe adjacent to the bridge and leading to the retention basin.

Traffic will be routed to the northern half of the bridge and demolition will begin on the southern half. The removal process will be identical to that used for the northern half. The southern footings will be constructed following demolition of the existing structure. Excavation will take place above the ordinary high water line. Should water be encountered, it will be pumped to the retention pond. The footings for the downstream half of the new bridge will then be formed and poured. Voided slabs will be placed by crane upon the newly constructed abutments.

New wing walls will be constructed for the entire bridge by first excavating the banks to accommodate the new structure. Forms will be placed and concrete poured into them. Using a track hoe with an articulated bucket placed above the wing walls, riprap (of varied sizes) will be anchored into place. On the southeastern side of the bridge at the confluence of the Salmon River, the channel of Basin Creek will be realigned, approximately 30 degrees to the east of its present location. Material from the old road and from stream deposition will be removed by track hoe, backhoe, and manual labor during September, October, and early November. No excavation will occur in Basin Creek or the Salmon River, but grading and shaping the banks could remove up to 1,000 cubic yards of material. All excavated material will be transported to the disposal site on SH-75 at milepost 207. Under the direction of Bruce Lium, PhD., cobble material will be placed to reestablish and stabilize the channel, create a non-erodible bank, and taper the cobble to

the wing walls and riprap. The newly stabilized area will be power-washed to remove sediment and the water will be pumped to the sediment pond.

The dewatering structure will be removed by hand, in the same manner as installation, as per manufacturer's specifications. The trench that was required for anchoring the leading edge of the vinyl material will either be filled with boulders and cobblestone or left in place to be filled by natural fluvial processes.

## **2. Site restoration**

The campground area upstream from the road and bridge project will be abandoned and the floodplain will be restored to natural historic conditions. To restore the original high flow channel, a riprap berm and approximately 42 to 51 cubic yards of fill material will be removed using an excavator, carefully minimizing impacts to riparian vegetation. The pipe culvert at the existing campground entrance will be removed, but the entrance approach will remain as a parking area to accommodate up to 4 vehicles. Approximately 1,364 feet of roadbed will be removed from the campground area with a track hoe. This material, totaling approximately 1,720 cubic yards, will be transported to the disposal site. The SNRA will complete restoration of the campground as previously described in their 1996 Final Environmental Impact Statement.

Restoration work along the highway and new bridge will be completed by the Department. Willows will be planted in excavated and rip rapped banks using the Lium Willow planter. Wetland plantings (plugs), obtained from the natural wetland near the east end of the campground, will be placed by hand at the outflow locations of the two campground wetland overflow culverts; approximately 1,500 feet along the north Salmon River bank will be planted. Additional riparian plantings and reseeding along the Salmon River will complete the restoration work in the area previously compacted by float boat take-out use.